

water.

C2 Figure 4. (Prior Art) Bound water on a typical colloidal particle made by standard activation techniques.

Figure 5. A schematic representation of the believed polymerization behavior of silica.

Figure 6. Electron photomicrographs of silica particles made by standard activation techniques compared to electron photomicrographs of 6a colloid of the invention.--

On page 17, please insert the following text after line 17.

C3 Figure 15b is a cross section of the schematic of the current scrubber of the present invention.--

On page 22

C4 --The IPE is pumped into stainless steel trays 2" X 18" X 24". The trays are placed into vented drying ovens at 150° to 175°F (Figure 10). The material is cured for 3 days. The resulting product is an off white crystalloid with a density of ~ 1.1 to 1.2, solubility in distilled water is 6 ppm. Bound water > 50% odor-none, taste-none. The material at this point is referred to as inorganic polymer crystalloid (IPC). It is allowed to cure in plastic bags at 70°F and 40 to 60% humidity but not limited to this temperature and humidity. This may be accomplished in temperature and humidity controlled curing bins if the material in large quantity for commercial or municipal use as in Figure 11.--

On page 24, delete lines 11 through 17 in their entirety and insert the following amended text:

C5 --Figure 15 represents a more compact ion exchange softener. Water flows through the inflow pipe (12) through bed (23), then (22) and (21). The IPE sequesters 40% of the cations. Therefore, pass through three small columns will remove 94% of the cations therefore outflow (20) will be 94% free of hardness ions. The deionized reserve tank (17) will fill until float valve -

(18) stops the flow. This reserve tank, when full, will begin to leach IPE of the insert (15a, 15b) and will be ready for regeneration. When the regeneration cycle begins, valve (29) closes, valve (25) closes, (27) closes, (28) closes and (24) opens.--